ABSTRACT OF THE DISCLOSURE

A method of system is provided for assaying specimens. In connection with such system or method, plural multi-pixel target images of a field of view are obtained at different corresponding points in time over a given sample period. A background image is obtained using a plural set of the plural target images. For a range of points in time, the background image is removed from the target images to produce corresponding background-removed target images. Analysis is performed using at least a portion of the corresponding background-removed target images to identify visible features of the specimens. A holding structure is provided to hold a set of discrete specimen containers. A positioning mechanism is provided to position a plural subset of the containers to place the moving specimens within the plural subset of the containers within a field of view of the camera.